

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A multi-stack optical data storage medium ~~(20)~~ for rewritable recording using a focused radiation beam ~~(19)~~ entering through an entrance face ~~(16)~~ of the medium ~~(20)~~ during recording, comprising:

[[~~-~~]] a substrate ~~(1)~~ with deposited on a side thereof:

[[~~-~~]] a first recording stack ~~(2)~~— L_0 , comprising a first phase-change type recording layer—~~(6)~~, said first recording stack ~~(2)~~ being present at a position most remote from the entrance face ~~(16)~~,

[[~~-~~]] at least one further recording stack ~~(3)~~— L_n , which comprises a further phase-change type recording layer—~~(12)~~, being present closer to the entrance face ~~(16)~~ than the first recording stack—~~(2)~~,

[[~~-~~]] a transparent spacer layer ~~(9)~~ between the recording stacks—~~(2, 3)~~, said transparent spacer ~~(9)~~ layer having a thickness

larger than the depth of focus of the focused laser-light beam
(19),

~~characterized in that~~wherein the further recording layer (12)
is substantially of an alloy defined by the formula $\text{Ge}_x\text{Sb}_y\text{Te}_z$ in
atomic percentages, where $0 < x < 15$, $50 < y < 80$, $10 < z < 30$ and $x + y + z = 100$
with a thickness selected from the range of 4 to 12 nm and that at
least one transparent crystallization promoting layer ~~(11', 13')~~
having a thickness smaller than 5 nm is present in contact with the
further recording layer ~~(12)~~, wherein the first recording stack and
the further recording stack have the same atomic percentages of
compounds.

2. (Currently amended) ~~An~~The optical storage medium ~~(20)~~ as
claimed in claim 1, wherein the transparent crystallization
promoting layer ~~(11', 13')~~ mainly comprises a material selected
from the group of nitrides, oxides of Si, Al and Hf.

3. (Currently amended) ~~An~~The optical storage medium ~~(20)~~ as
claimed in claim 2, wherein the transparent crystallization
promoting layer ~~(11', 13')~~ mainly comprises a material selected
from the group of nitrides of Al and nitrides of Si.

4. (Currently amended) ~~An~~ The optical storage medium (20) as claimed in claim 2, wherein the further recording layer (12) has a thickness selected from the range of 4 to 8 nm.

5. (Currently amended) ~~An~~ The optical storage medium (20) as claimed claim 1, wherein the alloy has a composition defined by the formula $\text{Ge}_x\text{Sb}_y\text{Te}_z$ in atomic percentages, where $5 < x < 8$, $70 < y < 80$, $15 < z < 20$ and $x+y+z=100$.

6. (Currently amended) ~~An~~ The optical storage medium (20) as claimed in any one of claims 1, wherein a metal reflective layer (14), semi-transparent for the radiation beam (19), is present in the further recording stack (3).

7. (Currently amended) ~~An~~ The optical storage medium (20) as claimed in claims 6, wherein the metal reflective layer (14) mainly comprises the element Cu.

8. (Currently amended) Use of an optical storage medium (20) as claimed in claim 1, for high speed recording with a recording speed higher than 12 m/s.

9. (New) The optical storage medium as claimed in claim 1, wherein the first recording stack and the further recording stack have the same composition.

10. (New) The optical storage medium as claimed in claim 1, wherein the first recording stack and the further recording stack have the composition $\text{Ge}_7\text{Sb}_{76.4}\text{Te}_{16.6}$.